

## Project Profile

# New types of group interaction

## Advanced multimedia applications and services in the distributed home environment



Unique individual experiences possible

**WellCom addresses the creation, delivery and management of advanced multimedia applications and services in the distributed home environment and for users on the go. The project offers solutions providing end users with easy access to new audiovisual services and applications from various terminals. A unique experience with new types of group interactions becomes possible in the form of advanced local and community services. To enable the delivery of such services with the required quality and security, WellCom addresses the problem of pushing a part of the service logic as close as possible to the end-user – that is to the residential gateway and end-user equipment.**

The experience of bringing digital entertainment into our homes is now shared by millions of households worldwide. Large availability of content has been seen as a major advance by end users. However, the delivered content is still mostly static and end users have only unstructured tools to navigate while facing an overflow of information. Therefore a change of paradigm in multimedia consumption is needed by delivering more personalised and interactive content to users.

WellCom defines new interactive services and applications, as well as the business model that supports them, reinforcing the introduction of new interactive services in the content delivery mass market. This is expected by the end users while companies try to optimise content development and distribution – as well as to enable continuous improvements in their business flexibility and network cost efficiency.

An example of such usage could be the following user case: while watching the same TV show, each member of the household and their guests can use their mobile phone to interact individually with the show and to receive on-demand some personalised information or additional multimedia content.

### ENCOURAGING EMERGENCE OF NEW MARKET

The main goal of WellCom is to develop a framework that allows the emergence of a new market for home environment applications. This framework includes a decentralised service delivery platform, a home network and end-user devices, as well as content enrichment tools. The service platform provides end-to-end automated service provisioning mechanisms over heterogeneous networks and devices.

In addition, the project will study design and implementation of a service development environment with standard application programming interfaces (APIs) enabling third party applications to interact seamlessly with the various components of the environment.

The home environment is composed of two categories of equipment:

1. Community equipment, such as a TV set or set-top box, shared by several people; and
2. Personal terminals, such as a mobile phone, owned by a single person.

## WELLCOM (ITEA 2 ~ 06030)

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### ■ Partners

Activa Multimedia  
Alcatel-Lucent  
CWI  
Expway  
FTA  
Henri Tudor  
InAccess Network  
InOut TV  
NXP Semiconductors  
Philips  
Prewise  
RTL  
SES Astra  
Telefonica I+D  
TeleIDEA  
Telenor  
TF1  
UNIK  
University of Evry

### ■ Countries involved

Finland  
France  
Greece  
Luxembourg  
The Netherlands  
Norway  
Spain

### ■ Project start

April 2007

### ■ Project end

April 2009

### ■ Contact

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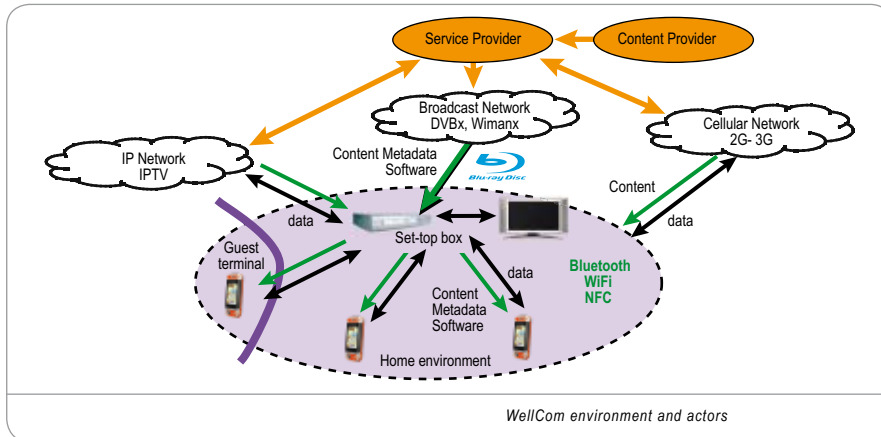
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WellCom proposes collaboration between these two categories of devices in order to enable both a community experience and personalised interactions.

Main business actors in such an approach include content providers, service providers, communication solution providers and end users. Such a business environment enables the emergence of new competing markets where third party providers propose innovative services to be delivered to home environments by a broad range of networks and mass media technologies.

### ADVANCED AND INNOVATIVE SOLUTIONS

The main challenges of WellCom are to develop advanced and innovative solutions in the following technical areas:

- Developing a new service infrastructure that enables a remote deployment of interactive added-value services in the home environment, using heterogeneous communication networks such as fixed IP, DVB-x, cellular and WiMax;
- Convergence between delivery networks, home network and interactive channels;
- Pushing services logic into active devices: set-top-box, residential gateway and handheld mobiles;
- Providing a standard interface between third party application providers and network operators to enable an easy deployment of interactive and personalised services; and
- Support to service-platform enablers – profile and profiling, privacy management, access rights and community services – that will be executed in a proxy mode in the home environment and in user devices.

The first step will consist in defining a high level functional architecture for the WellCom service platform and elaborating innovative applications based on the user's home environment. In a second step, a distributed end-to-end environment for services and applications will be provided where the home network and connected end-user devices will be developed. The final step will consist in co-ordinating the integration of the various components specified and implemented.

### SERVICES, PLATFORM AND DEMONSTRATIONS

The most visible results expected from WellCom are:

- Services and applications based on the interworking of heterogeneous communication technologies and customer premises equipment for delivery and return channels with demonstrations of:
  - The home gateway providing aggregation of the services and the user terminal interactions – with Bluetooth/near field communication (NFC) local channel; and
  - Personalisation and group interaction capabilities.
- An advanced service platform with adaptive and code mobility properties enabling the provisioning of mobile services and end-user applications – with the specification of a set of open, generic APIs.
- Live experiments based on:
  - DVB-T on a full DVB-T laboratory broadcasting chain;
  - DVB-S – with available satellite-capacity from SES Astra;
  - IPTV – on local area networks; and
  - Blu-ray media centre.
- Contribution to standards and publications.

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■ ITEA 2 – Information Technology for European Advancement – is Europe's premier co-operative R&D programme driving pre-competitive research on embedded and distributed software-intensive systems and services. As a EUREKA strategic Cluster, we support co-ordinated national funding submissions and provide the link between those who provide finance, technology and software engineering. Our aim is to mobilise a total of 20,000 person-years over the full eight-year period of our programme from 2006 to 2013.

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